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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,379

02/14/2006

Dieter Kokel

TM019

1044

52203 7590 08/22/2007  
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EXAMINER

LIU, MICHAEL

ART UNIT

PAPER NUMBER

2851

MAIL DATE

DELIVERY MODE

08/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/568,379

Applicant(s)

KOKEL, DIETER

Examiner

Michael Liu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20060214.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Receipt is acknowledged of the Preliminary Amendment filed 14 February 2006. No claims have been amended, claims 1-9 have been canceled, and claims 11-18 have been newly added by this amendment.

#### ***Drawings***

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the labels in the drawings must be in English.

#### ***Claim Objections***

3. Claim 14 is objected to because of the following informalities: "gradient ( $\alpha_2$ ,  $\alpha_1$ ) a respective offset value (Offs1, Offs2) is provided and new gradient  $\alpha_2$  is determined considering said respective offset values according to the following formula:  $\alpha_2 = \alpha_1 * (H_{soll} - Offs1) / (Hist - Offs2)$ " is incorrect when using Fig 4 to calculate the formula. The correct formula and gradient assignment is --gradient ( $\alpha_1$ ,  $\alpha_2$ ) a respective offset value (Offs1, Offs2) is provided and new gradient  $\alpha_2$  is determined considering said respective offset values according to the following formula:  $\alpha_2 = \alpha_1 * (H_{soll} - Offs2) / (Hist - Offs1)$ --. Moreover, if Examiner is correct in his assessment, then the formula on page 3 of the disclosure must also be changed. Appropriate correction is required.

Claim 15 is objected to because of the following informalities: "controlling" is misspelled and should be --controlling--. Appropriate correction is required.

Claim 17 is objected to because of the following informalities: The run-on sentence does not make grammatical sense. "the image of which is being formed" has

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been interpreted and should be changed to --to form an image--. Appropriate correction is required.

Claim 18 is objected to because of the following informalities: The wording of the claim is not grammatically correct. The claim should be changed to --A device according to claim 15, wherein the device is used in a vehicle environment as a monitoring camera for motor vehicles--. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. There is no tangible end result specified in the claims. A new gradient is calculated from a formula, but that new gradient must be used to effect change in the system.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Bechtel et al (2003/0103141).

**Re claim 15:** Bechtel et al discloses an exposure control device [Fig 2] for a camera 26 with at least one image sensor 60 in which an image brightness set-point Hsoll [paragraph 0057: brightness setting] is preset and control [using control logic 84] is carried out with reference to this image brightness set-point Hsoll, the device comprising:

a computer 30 for evaluating images and for substantially controlling [using image sensor interface and control 62] exposure and image brightness.

**Re claim 16:** wherein specific, relevant pixels are selected [by image brightness detector 74] to measure an image brightness and image brightness control [using image sensor interface and control 62] is substantially carried out with reference to selected regions [see paragraph 0054].

**Re claim 17:** wherein the computer uses an adjusted sensitivity [paragraph 0054: desired average image brightness] for the current image brightness of a scene 24 to form an image and for providing this value to a system [using 62].

**Re claim 18:** wherein the device is used in a vehicle environment as a monitoring camera 26 for motor vehicles 20 [see Fig 1].

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haruki et al (4,969,045).

**Re claim 10:** Haruki et al discloses an exposure control method for a camera 1 with at least one image sensor 8 in which an image brightness set-point (Hsoll) AV is preset and control is carried out with reference to this image brightness set-point (Hsoll), the method comprising:

adjusting a gradient ( $\alpha$ ) by controlling at least one of an integration time or an intensification of an image sensor [col 13, lines 23-33: matching with the optimum value in the luminance level of the image sensed video signal with respect to the major object];

determining a new gradient [q] from an initial gradient  $\alpha_1$  [p], image brightness set-point Hsoll [AV] and current image brightness Hist [t1].

Haruki et al teaches the adjustment of a gradient parameter to fit in a tolerance range [see Fig 8 & Fig 9] according to a predetermined criterion, which obviously determines an optimum gradient.

However, Haruki et al does not expressly disclose the specific gradient determining method, such as formula  $\alpha_2 = \alpha_1 * Hsoll / Hist$ .

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to recognize that Haruki et al's method of providing an optimum luminance value and Applicant's method ( $\alpha_2 = \alpha_1 * Hsoll / Hist$ ) both provide optimal gradient parameters. Therefore, it would have been obvious to adjust the gradient

parameter using the image brightness set-point, as done in Haruki et al, for the purpose of exposing under an optimal range.

**Re claim 11:** wherein image brightness Hist [t1] is compared with a tolerance range (Hsoll1, Hsoll2) [M] around image brightness set-point (Hsoll) [AV]; and a new gradient  $\alpha_2$  [q] is preset in one control step only if image brightness Hist lies outside [see Fig 8 & Fig 9] said tolerance range (Hsoll1, Hsoll2) around image brightness set-point (Hsoll).

**Re claim 12:** wherein a preset characteristic of a characteristic (K) [p] of the dependence of image brightness (H) [luminance level of video signal after exposure adjustment] on illumination (B) [luminance level of object] is taken into consideration when determining new gradient  $\alpha_2$  [see Fig 7-9].

**Re claim 13:** Haruki et al discloses all limitations of the claimed invention except for new gradient  $\alpha_2$  being determined considering at least one offset value Offs1 according to the following formula:  $\alpha_2 = \alpha_1 * (H_{soll} - Offs1) / (Hist - Offs1)$ .

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to adjust the gradient parameter using the image brightness set-point and the offset, for the purpose of exposing under an optimal range.

**Re claim 14:** Haruki et al discloses all limitations of the claimed invention except for each gradient ( $\alpha_1$ ,  $\alpha_2$ ) a respective offset value (Offs1, Offs2) is provided and new gradient  $\alpha_2$  is determined considering said respective offset values according to the following formula:  $\alpha_2 = \alpha_1 * (H_{soll} - Offs2) / (Hist - Offs1)$ .

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At the time the invention was made, it would have been obvious to one of ordinary skill in the art to adjust the gradient parameter using the image brightness set-point and the offsets, for the purpose of exposing under an optimal range.

**Conclusion**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Liu whose telephone number is 571-272-9019. The examiner can normally be reached on Monday through Friday 9 am - 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on 571-272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Liu  
Examiner  
Art Unit 2851

ML 20070813

  
**DIANE LEE**  
**SUPERVISORY PATENT EXAMINER**